

IN THE CLAIMS:

1. (Canceled)

2. (Canceled)

3. (Previously Presented): A method in a multiprocessor system, including at least two processors and a cache coherency controller, coupled to address concentration devices, the method operable in said cache coherency controller for improving coherent data transfers, the method comprising the steps of:

- initiating a first memory transaction request command to a first processor of said multiple processors;

- determining priority receipt status of a next memory transaction request;

- expanding snoop responses and accumulated snoop responses to provide a coherency action for all cacheline requests utilizing a burst command;

- forwarding said transaction requests from said master or said controller to a solitary global serialization device, said serialization device further comprising a multiple cacheline request indicator;

- grouping multiple and sequential coherent transfers into a burst operation on said processor bus;

- determining occurrence of the burst operation;

- timing said burst operation;

- snooping said burst operation to form a plurality of snoop replies;

- concentrating all addresses of said plurality of snoop replies to form a combined snoop response; and

- broadcasting the combined snoop response to a plurality of device entities.

4. (Original): The method of Claim 3 wherein said determining said occurrence of said burst operation comprises detecting an indication that a plurality of cachelines is requested.

5. (Original): The method of Claim 3 wherein said snooping said burst operation comprises separating said burst operation into multiple cacheline requests on a bus.
6. (Previously Presented): The method of Claim 3 wherein said snooping said burst operation comprises at least a bus and at least a cache directly supporting a burst operation.
7. (Canceled)
8. (Previously Presented): The method of Claim 4 wherein each processor of said at least two processors supports snooping a plurality of cachelines for the burst operation.
9. (Previously Presented): The method of Claim 3 wherein broadcast of said combined snoop response is between pluralities of processors.
10. (Previously Presented): The method of Claim 3 wherein said determining said occurrence of said burst operation includes the step of:
- determining whether a previous cacheline request corresponding to said processor is already present in a first-in first-out queue; and
 - queuing said cacheline request in response to a determination that said cacheline request is not already present in said first-in first-out queue.
11. (Original): The method of Claim 3 wherein accumulated snoop responses agglomerate as a combined response only on notification of individual responses of said entities within said processors.
12. (Canceled)
13. (Canceled)

14. (Currently Amended): A method of performing a burst transfer on a bus with cache coherency, the method comprising:

initiating a burst transfer command on a bus connecting a plurality of processors, wherein the burst transfer command is a request to access a block of data that comprises two or more cachelines;

performing, by each given processor within the plurality of processors, a cache snoop of the burst transfer command to form a burst snoop response;

accumulating burst snoop responses for the two or more cachelines from the plurality of processors to form a combined snoop response; and

broadcasting the combined snoop response to the plurality of processors,

wherein performing a cache snoop of the burst transfer command comprises:

splitting, by a snooping processor within the plurality of processors, the burst transfer command into a plurality of single cacheline requests;

forwarding the plurality of single cacheline requests to a plurality of entities within the snooping processor; and

performing, by each entity within the snooping processor, a cache snoop of each of the plurality of single cacheline requests to form a plurality of single cacheline snoop responses.

15. (Previously Presented): The method of Claim 14, wherein initiating a burst transfer command comprises:

responsive to a plurality of transfer commands requesting to access a plurality of sequential cachelines from a plurality of entities within an initiating processor, accumulating the plurality of transfer commands to form the burst transfer command.

16. (Previously Presented): The method of Claim 15, further comprising:

responsive to receipt of the combined snoop response at the initiating processor, separating the combined snoop response into a plurality of individual snoop responses; and

forwarding the plurality of individual snoop responses to the pluralities of entities within the initiating processor.

17. (Canceled)

18. (Currently Amended): The method of Claim [[17]] 14, wherein performing a cache snoop of the burst transfer command further comprises:

returning the plurality of single cacheline snoop responses from each entity within the snooping processor to a gathering function within the snooping processor, wherein the gathering function accumulates the plurality of single cacheline snoop responses to form a burst snoop response for the snooping processor.

19. (Currently Amended): A data processing system comprising:

a plurality of processors; and

a bus connecting the plurality of processors,

wherein an initiating processor from the plurality of processors initiates a burst transfer command on the bus and wherein the burst transfer command is a request to access a block of data that comprises two or more cachelines;

wherein each given processor within the plurality of processors performs a cache snoop of the burst transfer command to form a burst snoop response;

wherein a snoop response gathering function accumulates burst snoop responses for the two or more cachelines from the plurality of processors to form a combined snoop response and broadcasts the combined snoop response to the plurality of processors,

wherein a separation function within a snooping processor within the plurality of processors splits the burst transfer command into a plurality of single cacheline requests and forwards the plurality of single cacheline requests to a plurality of entities within the snooping processor; and

wherein each entity within the snooping processor performs a cache snoop of each of the plurality of single cacheline requests to form a plurality of single cacheline snoop responses.

20. (Previously Presented): The data processing system of Claim 19, wherein, responsive to a plurality of transfer commands requesting to access a plurality of sequential cachelines from a plurality of entities within the initiating processor, a gathering function

within the initiating processor accumulates the plurality of transfer commands to form the burst transfer command.

21. (Previously Presented): The data processing system of Claim 20, wherein, responsive to receipt of the combined snoop response at the initiating processor, a separation function within the initiating processor separates the combined snoop response into a plurality of individual snoop responses and forwards the plurality of individual snoop responses to the pluralities of entities within the initiating processor.

22. (Canceled)

23. (Currently Amended): The data processing system of Claim ~~[[22]]~~ 19, wherein a gathering function within the snooping processor accumulates the plurality of single cacheline snoop responses to form a burst snoop response for the snooping processor.